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September 18, 2001

Carol Hanlon
S&ER Products Manager
U. S. Department of Energy
Yucca Mountain Site Characterization Office
P.O. Box 30307 M/S 025
North Las Vegas, NV 89036-0707

RE: Inyo County's Comments on the *Yucca Mountain Preliminary Site Suitability Evaluation*, the U.S. Department of Energy's *Yucca Mountain Site Recommendation Hearing Process*, and DOE's "*Suggested Topics for Public Comment on Yucca Mountain*".

Dear Ms. Hanlon,

The County of Inyo, State of California, is an Affected Unit of Local Government under the Nuclear Waste Policy Act of 1982, as amended. Inyo County has prepared and is transmitting via this letter its response to the U.S. Department of Energy's (DOE's) Yucca Mountain Preliminary Site Suitability Evaluation. Further, we are commenting on DOE's attempt to comply with the provisions of Section 114 of the Nuclear Waste Policy Act requiring hearings on the Yucca Mountain Site Recommendation. We are also, as requested, responding to the "Suggested Topics for Public Comment on Yucca Mountain" provided to us August 28, 2001 by OCRWM Acting Director Lake Barrett.

Yucca Mountain Preliminary Site Suitability Evaluation

The release of the Preliminary Site Suitability Evaluation (PSSE), a document which makes conclusory statements regarding the Yucca Mountain site's suitability for development of a deep geologic repository, is premature in light of the fact that the U.S. Department of Energy has yet to complete NEPA proceedings on the Yucca Mountain proposal. Until a Final Environmental Impact Statement has been completed for use by the Department in evaluating the possible impacts of the repository on the geology and hydrology of the region, DOE has no legitimate basis for making a preliminary suitability determination for the site. We recognize that development and public review of the PSSE is not required by the Nuclear Waste Policy Act, however, if such a document is to be provided and utilized by DOE in the site recommendation process, it must, if it to have any real value to the public or utility to DOE and reviewing agencies, take into account the findings of the Final EIS and be released after the FEIS.

Release of the PSSE or any similar document making statements about site suitability is premature given that key scientific studies regarding waste package corrosion processes are still underway and the site's saturated zone, unsaturated zone and regional alluvial geology is only generally understood. Most of the conclusory statements in the PSSE originate from the results of the application of the Total System Performance Assessment Process (TSPA) utilized by DOE for integration of subsystem performance findings. TSPA relies on a limited amount of scientific information on and innumerable assumptions regarding subsystem performance, uncertainty levels for which may vary by more than an order of magnitude. Our review of the Science & Engineering Report, the Draft EIS, the Supplemental EIS and discussions taking place among DOE, the Nuclear Waste Technical Review Board and the Nuclear Regulatory Commission evidence the persistence of high levels of uncertainty in the behavior of virtually all geologic, hydrologic and proposed engineered systems.

Ongoing, proposed and future studies have the potential to reduce uncertainties to reasonable levels and provide DOE and the public a better-grounded scientific and technical basis from which to evaluate site suitability, however sufficient information is not before DOE at this time to warrant even the most preliminary conclusions regarding the site's ability to function as intended by the Nuclear Waste Policy Act or meet EPA release standards for the 10,000-year licensing period. Given this circumstance, a scientifically sound determination of site suitability cannot be made at this juncture, nor anytime in the near future.

As you are well aware, DOE's ongoing attempts to evaluate site suitability are based on *proposed* site suitability guidelines, not those site evaluation guidelines currently in place and legally in effect. It seems obvious to most observers that site suitability explorations must revolve around those officially adopted, legally binding guidelines already in place, not the proposed, hypothetical, hopeful and legally meaningless guidelines which have served as a framework for the PSSE.

Yucca Mountain Site Recommendation Consideration Hearings

The current set of scheduled Site Recommendation Consideration Hearings are premature, inadequate and a clear violation of the letter and intent of the Nuclear Waste Policy Act. They are premature for the same reason that the PSSE is premature (discussed in the previous section). The hearings are inadequate as locating all hearings in Nevada ignores Inyo County's unique status as the ultimate destination for those radionuclides that will, under all repository design variants under consideration by DOE, escape from the repository block and travel via groundwater and perhaps surface water, into the Southern Amargosa Valley and Death Valley National Park. California's Inyo and San Bernardino Counties contain major sections of the aquifers through which radionuclides are predicted to travel as well as the Amargosa River system that may serve to transport these same materials via surface water.

Given that the Yucca Mountain Project constitutes a serious threat to an established National Park (that is located almost entirely within California and makes up one-half of the surface area of Inyo County), our status and the magnitude of these future impacts warrant specific and timely attention to Inyo County's concerns – concerns which are equally California and national issues. We have placed a request with Secretary Abraham that one or more hearings be conducted in Inyo County (please see Attachment A). Our request has the support of California Senator Feinstein and Congressman Jerry Lewis (please see Attachment B).

Section 114 (a)(1) of the Nuclear Waste Policy Act, as amended, specifies that:

"The Secretary (*DOE*) shall hold public hearings in the vicinity of the Yucca Mountain site, for the purposes of informing the residents of the area of such consideration (*consideration of site suitability*) and receiving their comments regarding the possible recommendation of such site."

Inyo County, whose border lies just 17 miles from the Yucca Mountain site and who will receive via groundwater radioactive materials leaking from Yucca Mountain, certainly qualifies as being in the vicinity of the site. Indeed, in our role of receiving radioactive materials and retarding the transport of radionuclides to the populated sections of the Southern Amargosa and Death Valleys, we may legitimately be considered functionally part of the Yucca Mountain project itself. There is no doubt that the NWPA obligates DOE to provide a hearing in Inyo County. Further, the above referenced section points to a hearing process that is limited to receiving comments from residents of "the area" and their elected representatives. Testimony should be limited to parties within or representative of the "vicinity" of the site i.e. from Inyo, San Bernardino, Nye and Clark Counties. DOE failed to seriously attempt or achieve compliance with NWPA Section 114(a)(1) at the September 5, 2001 public hearing in Las Vegas, Nevada, and would be well advised to comply fully with this requirement at future California hearings.

DOE Suggested Topics for Public Comment on Yucca Mountain

On August 28, 2001 we received from OCRWM Acting Director Lake Barrett a list of suggested topics which might, in the context of the Yucca Mountain Site Recommendation process, form the basis for a constructive public dialogue concerning Yucca Mountain, the site recommendation process, and possible means to meet the Nation's need for the storage of spent fuel and high-level radioactive waste. We welcome the opportunity to address the nuclear waste issue at this level and appreciate Mr. Barrett's request. The following section responds to each topic in a general manner.

DOE TOPIC #1: Please provide your views concerning whether the Yucca Mountain Preliminary Site Suitability Evaluation (PSSE) and other scientific documents produced by the Department provide an adequate basis for finding that the Yucca Mountain site is suitable for development of a repository. If you believe that certain aspects of the PSSE are inadequate, please detail the basis for this belief and indicate how the documentation might be made adequate with respect to these aspects.

RESPONSE TO DOE TOPIC #1: As discussed above, the PSSE itself is premature and should be developed after completion and release of the Final EIS. While individual scientific documents may or may not be adequate to the degree to which they concretely define whatever TSPA parameter they are designed to illuminate and quantify, in general terms the scientific basis necessary to support a positive or negative site recommendation does not exist. Given the short time frames within which the materials studies have been conducted and the limited understanding of the impact of the repository packages on near-field geologic conditions and through-repository water flow, and minimal information on far-field hydrologic phenomenon, the state of knowledge on the proposed repository is rife with uncertainties which in turn are being incorporated into the TSPA process to produce less than credible results. These in turn form the basis of the PSSE and will, unfortunately, likely serve as the shaky foundation of Secretary Abraham's site recommendation.

DOE TOPIC #2: If the Secretary determines that the scientific analysis indicates that the Yucca Mountain site is likely to meet the applicable radiation protection standards established by the Environmental Protection Agency and Nuclear Regulatory Commission, do you believe that the Secretary should proceed to recommend the site to the President at this time? If not, please explain.

RESPONSE TO DOE TOPIC #2: The EPA's radiation protection standards allow for the destruction of those aquifers that provide sustenance for humans and Federally-protected natural habitat in both the Amargosa Valley and Death Valley National Park. These standards are entirely unacceptable to Inyo County. No proposal/design that allows the release of radioactive materials from the repository should be recommended to the President. DOE should concede that the necessary hydrogeologic prerequisites necessary to isolate nuclear waste from the human environment are not present at the Yucca Mountain site and, to the extent possible given that it is working directly under a specific Congressional mandate not of its own choosing, seek further direction from Congress regarding the issue of long-term handling of spent fuel and high-level nuclear waste.

DOE TOPIC #3: Are there any reasons that you believe should prevent the President from concluding that the Yucca Mountain site is qualified for the preparation and submission of a construction license application to the Nuclear Regulatory Commission?

RESPONSE TO DOE TOPIC #3: See responses to DOE TOPIC #1 and DOE TOPIC #2 above.

DOE TOPIC #4: If you believe that the Secretary should not proceed with a recommendation to develop a repository at Yucca Mountain, what measures should the Nation consider for assuring safe disposal of spent nuclear fuel and high-level radioactive waste?

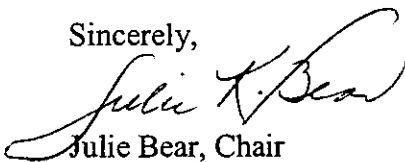
RESPONSE TO DOE TOPIC #4: In May, 2001 DOE released the documents "Nuclear Waste Fund Fee Adequacy Report" and "Total System Life Cycle Cost of the Civilian Radioactive Waste Management Program". These documents reveal that the total expected cost of the Yucca Mountain Project is projected to be 56 billion dollars, of which about 7 billion dollars have been spent to date. A general estimate of the cost to store spent nuclear fuel in NRC-certified aboveground dry casks (casks with an estimated useful life of 50-100 years each) is reported in the Total System Lifecycle Cost Report as \$100,000 per metric ton, or about 7 billion dollars to encase the entire inventory of spent fuel anticipated to be emplaced in Yucca Mountain (70,000 metric tons). If we assume, for the sake of argument, that the entire process of manufacturing and transporting dry casks, retrofitting nuclear generator, DOE and DOD sites to meet NRC on-site storage license requirements, and development and implementation of monitoring and security measures for all sites totals out at \$15 billion dollars, we can see a clear, relatively inexpensive and expedient path to meet the Nation's long-term storage needs without building a centralized repository, without incurring the transportation (health and terrorism) risks associated with a 24-year spent fuel transportation campaign, and without extracting the entire 56 billion dollars from nuclear power consumers. In addition, the spent fuel would remain packaged in accessible, readily monitored, repaired and replaced containers for future reprocessing, transmutation, or burial as necessary to our future needs and priorities.

DOE TOPIC #5: Please provide any other comments concerning any relevant aspect of the Yucca Mountain site for use as a repository, or that are otherwise relevant to the consideration of a possible recommendation to the Secretary.

RESPONSE TO DOE TOPIC #5: In response to this question we incorporate by reference those comments submitted by Inyo County on the Yucca Mountain Draft EIS (Attachment C) and the Supplemental EIS (Attachment D). These documents discuss significant uncertainties regarding project safety and site suitability as well as several fundamental and litigable defects in DOE's attempt to comply with the National Environmental Policy Act.

If you have any questions about this submittal or require additional information, please feel free to contact Andrew Remus, Project Coordinator, Inyo County Yucca Mountain Repository Assessment Office at (760) 878-0447.

Sincerely,



Julie Bear, Chair
Inyo County Board of Supervisors

cc: Senator Dianne Feinstein
Senator Barbara Boxer
Congressman Jerry Lewis
Governor Gray Davis
State of Nevada
San Bernardino County Board of Supervisors
Nye County Board of Commissioners
Clark County Board of Commissioners